IN THE CLAIMS:

Claim 2 was previously cancelled. Claims 1 and 28 have been amended herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

1. (Currently amended) A method for creating at least one electrical pathway in a semiconductor device structure, comprising:

providing a semiconductor substrate;

ablating one or more depressions elongated to a length in a direction substantially parallel to a surface of the semiconductor substrate in and along the surface to define at least one electrical pathway extending along the surface, the length of each depression of the one or more depressions being greater than a width of each respective depression of the ~~plurality of~~ one or more depressions;

depositing an electrically conductive material over the surface of the semiconductor substrate and into the one or more depressions; and

planarizing the electrically conductive material at least to the surface of the semiconductor substrate to laterally isolate the electrically conductive material in the one or more depressions.

2. (Canceled)

3. (Previously presented) The method of claim 1, further comprising etching the one or more depressions in the surface of the semiconductor substrate subsequent to ablating and prior to depositing the electrically conductive material over the surface of the semiconductor substrate.

4. (Original) The method of claim 1, wherein providing the semiconductor substrate comprises providing at least one of a silicon wafer, a silicon on insulator substrate, a silicon on sapphire substrate, an epitaxial layer of silicon on a base semiconductor foundation, a substrate comprising a layer of silicon-germanium, a substrate comprising a layer of germanium, a substrate comprising a layer of gallium arsenide and a substrate comprising a layer of indium phosphide.

5. (Previously presented) The method of claim 1, wherein depositing the electrically conductive material over the surface of the semiconductor substrate comprises depositing at least one of a metal, a conductive polymer and conductive nano-particles over the surface of the semiconductor substrate.

6. (Previously presented) The method of claim 5, wherein depositing the at least one of the metal, the conductive polymer and the conductive nano-particles over the surface of the semiconductor substrate comprises depositing a metal selected from the group consisting of solder, aluminum, titanium, nickel, iridium, copper, gold, tungsten, silver, platinum, palladium, tantalum, molybdenum and alloys thereof over the surface of the semiconductor substrate.

7. (Original) The method of claim 5, wherein depositing the at least one of the metal, the conductive polymer and the conductive nano-particles over the surface of the semiconductor substrate comprises depositing a conductive polymer selected from the group consisting of a metal filled silicone and an isotropically conductive or conductor-filled epoxy over the surface of the semiconductor substrate.

8. (Original) The method of claim 1, wherein providing the semiconductor substrate comprises providing the semiconductor substrate and forming a film over at least a portion of the surface of the semiconductor substrate, and wherein ablating one or more depressions in the surface of the semiconductor substrate comprises ablating the one or more depressions at least partially through the film.

9. (Original) The method of claim 8, further comprising:

depositing an electrically conductive material over a surface of the film and into the one or more depressions; and

planarizing the electrically conductive material at least to the surface of the film to laterally isolate the electrically conductive material in the one or more depressions.

10. (Original) The method of claim 9, further comprising etching the one or more depressions in the film subsequent to ablating and prior to depositing the electrically conductive material over the surface of the film.

11. (Previously presented) A method for creating at least one conductive element and at least one conductive structure in a semiconductor device structure, comprising:

providing a semiconductor substrate; and

substantially simultaneously ablating at least one depression elongated to a length in a direction substantially parallel to a surface of the semiconductor substrate in and along the surface to define a path for at least one conductive element in the form of an elongated trace extending along the surface of the semiconductor substrate, the length being greater than a width of the at least one depression, and ablating at least another depression in and transverse to the surface of the semiconductor substrate comprising a via extending into the semiconductor substrate.

12. (Previously presented) The method of claim 11, further comprising:

depositing an electrically conductive material over the surface of the semiconductor substrate and into the at least one depression and the at least another depression; and

planarizing the electrically conductive material at least to the surface of the semiconductor substrate to laterally isolate the electrically conductive material in the at least one depression and the at least another depression.

13. (Previously presented) The method of claim 12, further comprising etching the at least one depression and the at least another depression in the surface of the semiconductor substrate subsequent to ablating and prior to depositing the electrically conductive material over the surface of the semiconductor substrate.

14. (Original) The method of claim 11, wherein providing the semiconductor substrate comprises providing at least one of a silicon wafer, a silicon on insulator substrate, a silicon on sapphire substrate, an epitaxial layer of silicon on a base semiconductor foundation, a substrate comprising a layer of silicon-germanium, a substrate comprising a layer of germanium, a substrate comprising a layer of gallium arsenide and a substrate comprising a layer of indium phosphide.

15. (Original) The method of claim 12, wherein depositing the electrically conductive material over the surface of the semiconductor substrate comprises depositing at least one of a metal, a conductive polymer and conductive nano-particles over the surface of the semiconductor substrate.

16. (Previously Presented) The method of claim 15, wherein depositing the at least one of the metal, the conductive polymer and conductive nano-particles over the surface of the semiconductor substrate comprises depositing a metal selected from the group consisting of solder, aluminum, titanium, nickel, iridium, copper, gold, tungsten, silver, platinum, palladium, tantalum, molybdenum and alloys thereof over the surface of the semiconductor substrate.

17. (Original) The method of claim 15, wherein depositing the at least one of the metal, the conductive polymer and conductive nano-particles over the surface of the semiconductor substrate comprises depositing a conductive polymer selected from the group consisting of a metal filled silicone and an isotropically conductive or conductor-filled epoxy over the surface of the semiconductor substrate.

18. (Previously presented) The method of claim 11, wherein providing the semiconductor substrate comprises providing the semiconductor substrate and forming a film over at least a portion of the surface of the semiconductor substrate, and wherein ablating at least one depression and at least another depression in the surface of the semiconductor substrate comprises ablating the at least one depression and the at least another depression at least partially through the film.

19. (Previously presented) The method of claim 18, wherein ablating at least one depression and at least another depression at least partially through the film comprises ablating the at least one conductive structure precursor through the film to expose an active area on the surface of the semiconductor substrate.

20. (Previously presented) The method of claim 18, further comprising:

depositing an electrically conductive material over a surface of the film and into the at least one depression and the at least another depression; and

planarizing the electrically conductive material at least to the surface of the film to laterally isolate the electrically conductive material in the at least one depression and the at least another depression.

21. (Previously presented) The method of claim 20, further comprising etching the at least one depression and the at least another depression subsequent to ablating and prior to depositing the electrically conductive material over the surface of the film.

22. (Previously presented) A method for creating at least one electrical connection through a sidewall of a semiconductor device structure, comprising:

providing a semiconductor substrate having an active surface, a backside surface, and at least one sidewall oriented substantially perpendicular to the active surface and the backside surface; and

ablating one or more depressions in a surface of the at least one sidewall of the semiconductor substrate to define at least one electrical connection.

23. (Previously presented) The method of claim 22, further comprising:

depositing an electrically conductive material over the surface of the at least one sidewall of the semiconductor substrate and into the one or more depressions; and

planarizing the electrically conductive material at least to the surface of the at least one sidewall of the semiconductor substrate to laterally isolate the electrically conductive material in the one or more depressions.

24. (Previously presented) The method of claim 23, further comprising etching the one or more depressions in the surface of the at least one sidewall of the semiconductor substrate subsequent to ablating and prior to depositing the electrically conductive material over the surface of the at least one sidewall of the semiconductor substrate.

25. (Previously presented) The method of claim 22, wherein providing the semiconductor substrate comprises providing the semiconductor substrate and forming a film over at least a portion of the surface of the at least one sidewall of the semiconductor substrate, and wherein ablating one or more depressions in the surface of the at least one sidewall of the semiconductor substrate comprises ablating the one or more depressions at least partially through the film.

26. (Original) The method of claim 25, further comprising:

depositing an electrically conductive material over a surface of the film and into the one or more depressions; and

planarizing the electrically conductive material at least to the surface of the film to laterally isolate the electrically conductive material in the one or more depressions.

27. (Original) The method of claim 26, further comprising etching the one or more depressions subsequent to ablating and prior to depositing the electrically conductive material over the surface of the film.

28. (Currently amended) The method of claim 1, wherein ablating one or more depressions ~~in a~~ in the surface of the semiconductor substrate further comprises:

providing a laser configured to emit a laser beam; and

traversing the surface of the semiconductor substrate with the laser beam.